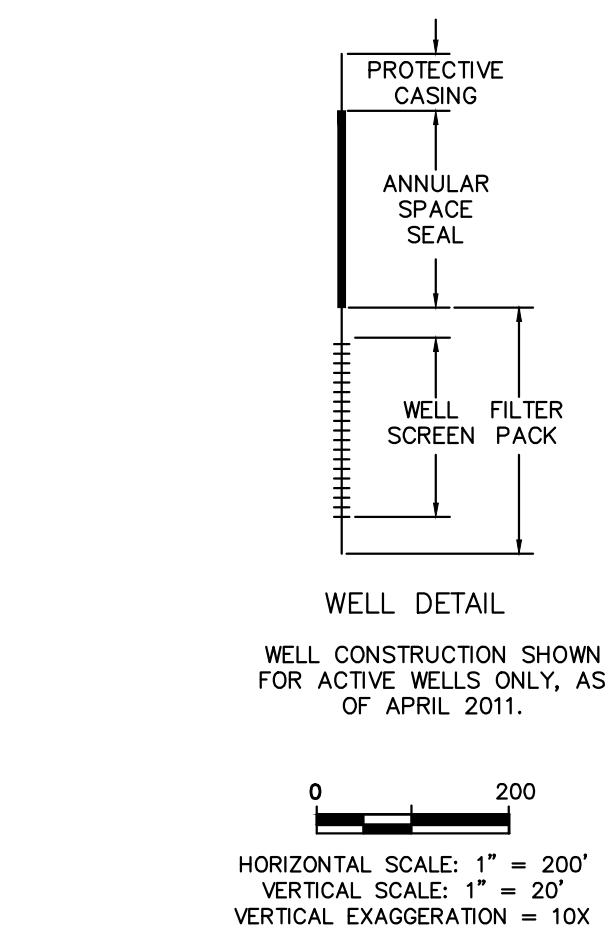


E'
EAST

USCS CLASSES	
GW	GRAVEL, WELL GRADED, LITTLE OR NO FINES
GP	GRAVEL, POORLY GRADED, LITTLE OR NO FINES
GM	SILT GRAVEL
GC	CLAYEY GRAVEL
SW	SAND, WELL GRADED, LITTLE OR NO FINES
SP	SAND, POORLY GRADED, LITTLE OR NO FINES
SP-SM	SAND, POORLY GRADED WITH SILT
SM	SILTY SAND
SC	CLAYEY SAND
ML	SILT
CL-ML	SILTY CLAY
CL	LEAN CLAY
CH	FAT CLAY
OL	ORGANIC SILT OR CLAY, LOW PLASTICITY
OH	ORGANIC SILT OR CLAY WITH HIGH PLASTICITY
PT	PEAT

SYMBOLS AND TEST RESULTS	
LL	LIQUID LIMIT
PI	PLASTICITY INDEX
NP	NON-PLASTIC
OC	ORGANIC CONTENT (%)
MC	MOISTURE CONTENT (%)
K _v	LABORATORY VERTICAL HYDRAULIC CONDUCTIVITY (cm/sec)
K _h	FIELD HORIZONTAL HYDRAULIC CONDUCTIVITY (cm/sec)
0/30/42/20	PERCENT GRAVEL, SAND, SILT, AND CLAY
0/80/13	PERCENT GRAVEL, SAND, AND SILT PLUS CLAY
(120)16	GROUNDWATER ELEVATION ON 4/4/11 (FEET ABOVE MEAN SEA LEVEL)
▼	WATER TABLE (SEE NOTE 5)
— — — — —	CONTACT BETWEEN MAJOR GEOLOGIC UNITS (DASHED WHERE INTERFERED)
— — — — —	BEDROCK SURFACE (SEE NOTE 6)



NOTES:

1. THE DRAWING WAS DERIVED FROM SGS ENGINEERS DECEMBER 2010 GLACIER RIDGE SOUTHEAST EXPANSION FINAL GRADES REPORT WITH THE ALLOWED TOLERANCE OF ± 0.5 FEET. GRADES AND HIGH WATER TABLE MAP GROUNDWATER SURFACE.
2. LINES CORRELATING STRATA ARE BASED ON INTERPOLATION BETWEEN BORINGS AND MAY NOT REPRESENT ACTUAL SUBSURFACE CONDITIONS.
3. FOR A DETAILED DESCRIPTION OF SUBSURFACE CONDITIONS AT INDIVIDUAL BORINGS, REFER TO THE BORING LOGS AND THE BORING LOG SUMMARY REPORT. REFER TO THE BORING AND MONITORING WELL INFORMATION APPENDIX.
4. ELEVATIONS ARE SHOWN IN REFERENCE TO THE USGS MEAN SEA LEVEL DATUM.
5. WATER TABLE SURFACE SHOWN BETWEEN BORINGS BASED ON THE HIGH WATER TABLE MAP SHEET 1 OF 2 OF APRIL 2011.
6. THE BEDROCK SURFACE ILLUSTRATED ON THE CROSS SECTIONS IS INFERRED AND IS BASED ON THE TOP OF BEDROCK MAP, SHEET 18 OF 24.
7. MW408, PA08A AND PA01D WATER LEVELS WERE NOT MEASURED DURING APRIL 2011. RECORDED WATER LEVELS ARE THEREFORE FOR APRIL 9, 2012.
8. THE EXISTING GROUND SURFACE AND PROPOSED FINAL GRADES OF THE VERTICAL EXPANSION ARE BASED ON INFORMATION PRESENTED ON SHEETS 3 AND 4 OF THE VERTICAL EXPANSION REPORT.
9. THE WATER TABLE SURFACE SHOWN ON THE CROSS SECTION IS BASED ON CONDITIONS PRIOR TO THE INSTALLATION OF THE GRADIENT CONTROL AND/OR UNDERDRAIN SYSTEMS OR FEATURES UNDER THE SOUTHEAST EXPANSION. THE GROUNDWATER GRADIENT CONTROL SYSTEM WAS OPERATIONAL UNDER THE SOUTHEAST EXPANSION PHASES 1A, 2A, AND 3A AT THE TIME OF THE DESIGN OF THE VERTICAL EXPANSION. THE GRADIENT CONTROL MONITORING POINT GCM-1 DURING PHASE 1A OF THE VERTICAL EXPANSION DESIGN WAS 10.56 FEET ABOVE MEAN SEA LEVEL (AMSL) IN APRIL 2011. THE GROUNDWATER ELEVATION AT MONITORING POINT GCM-1 HAS AVERAGED 929.9 FEET AMSL FROM SEPTEMBER 2006 THROUGH APRIL 2011.

GENERAL DESCRIPTION OF MAJOR GEOLOGIC UNITS:

UNCONSOLIDATED DEPOSITS

ORGANIC SOILS

GENERALLY BLACK PEAT (PT), FIBROUS TO WEATHERED, WITH MINOR AMOUNT OF ORGANIC SILT (CL) AND/OR CLAY (GH) DEPOSITED IN WETLANDS.

GLACIAL/AQUICLUSTRE SEDIMENTS

GENERALLY ORGANIC OR DARK GRAY SILT AND CLAY (CL, CL-ML, ML), DEPOSITED IN A GLACIAL LAKE ENVIRONMENT. INCLUDES DISCONTINUOUS LENSES OF GLACIOFLUVIAL SAND AND GRAVEL.

GLACIAL TILT

GENERALLY BROWN OR GRAY SILT, SANDY DIAMICTON (SM, GM, ML) DEPOSITED BY OR FROM GLACIAL ICE AS BASAL TILT. INCLUDES DISCONTINUOUS LENSES OF SAND AND SILT/CLAY. TWO TILL UNITS MAY BE PRESENT, INCLUDING THE LOWER TILL UNIT OF THE HOLY HILL FORMATION AND AN OLDER TILL THAT IS DENSE AND GRAY/CLAY IN COLOR. THE LOWER TILL IN SOME LOCATIONS INCLUDES BEDDING IN THE BEDROCK.

GLACIOFLUVIAL SEDIMENTS

GENERALLY GRAY SAND AND GRAVEL (GP-GM, SP-SM, SW, GW) DEPOSITED BY GLACIAL MELTWATER. INCLUDES DISCONTINUOUS LENSES OF SILT/CLAY.

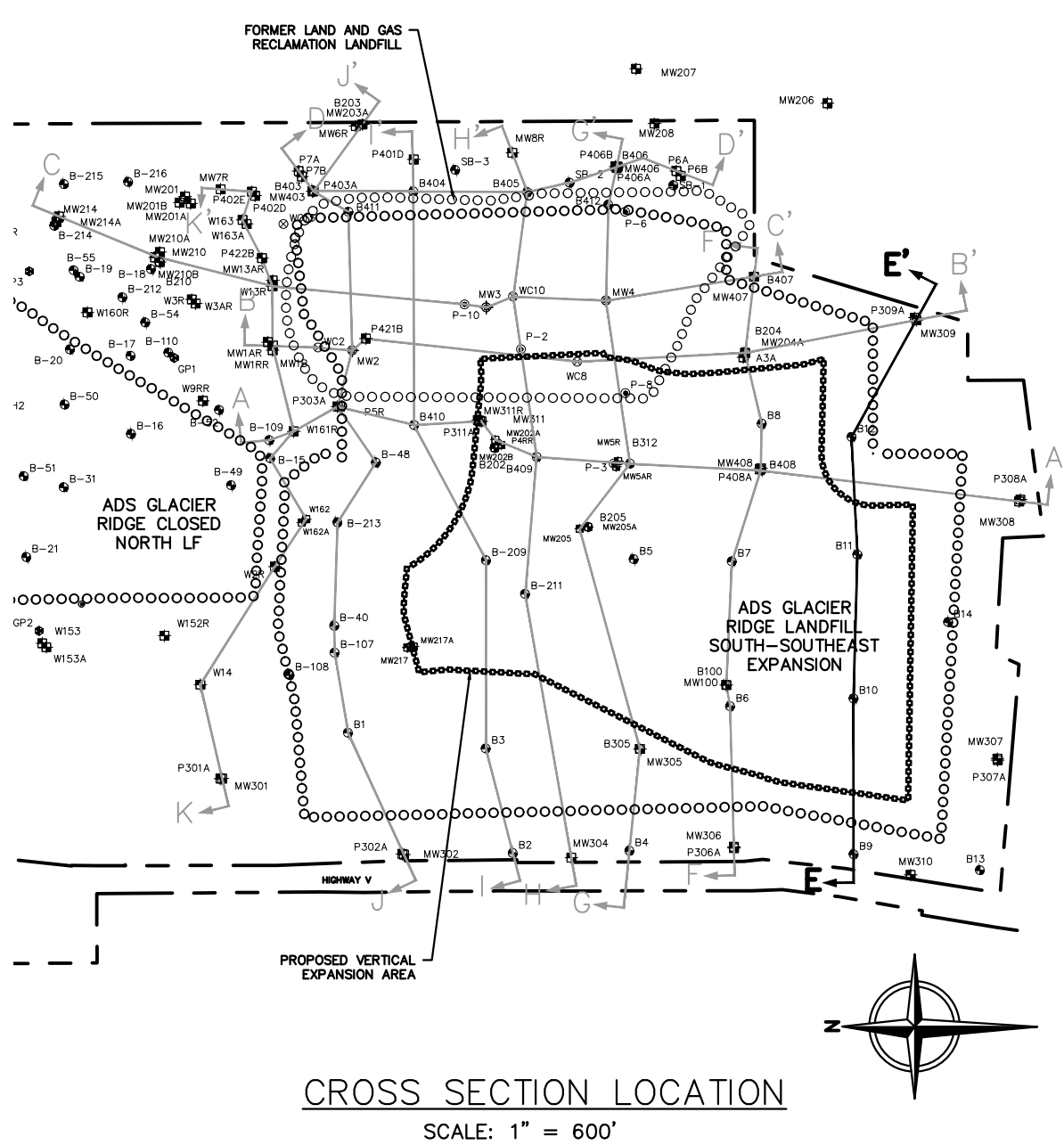
BEDROCK

SHALE – MAQUOKETA FORMATION

GREENISH GRAY SHALE WITH SILTY DOLOMITIC BEDS. CLAY COMPOSITION IS PRIMARILY ILLITE-TO LATE ORDOVICIAN AGE.

DOLOMITE – SHANPEEK GROUP

WHITE TO LIGHT GRAY MASSIVE DOLOMITE AND SHALE; DOLOMITE, WITH CERT. MIDDLE ORDOVICIAN AGE.



REV DATE DESCRIPTION DWN BY DES BY CHK BY APP BY

DATE OF ISSUE DRAWN BY SSW CHECKED BY JCO
9/14/2018 DESIGNED BY . APPROVED BY MJT



ADVANCED DISPOSAL SERVICES
GLACIER RIDGE LANDFILL
DODGE COUNTY, WISCONSIN
FEASIBILITY REPORT
SOUTH - SOUTHEAST VERTICAL EXPANSION
GEOLOGIC CROSS SECTION E-E'

SHEET NO.
10
PROJECT NO.
180250